

REMARKS

The Applicants respectfully request reconsideration of the application in view of the remarks made herein.

Formal Matters

Claims 1 and 6 have been amended to specify “a printhead assembly comprising multiple printheads, wherein each of said printheads comprises multiple nozzle orifices”. Support for these amendments can be found throughout the specification, see, e.g., pages 18-19, paragraph 45 and Figure 3.

Claims 1 and 6 have been amended to specify printhead related data includes “the type of each of said printheads, wherein said type is selected from a piezo-based printhead, a thermal-based printhead or a resistance-based printhead”. Support can be found throughout the specification, see, e.g., page 19, paragraph 46 and at page 21, paragraph 50.

Claim 6 has also been amended to remove a duplicate element which was added to the claim in error in a previous communication.

Claims 1, 4, 6, and 9 have been amended to be consistent with the amendments noted above and for clarity. Support for these amendments may be found in the claims as originally presented and throughout the specification.

New Claims 22 to 26 have been added. Support for these new Claims can be found throughout the specification and claims as filed, see, e.g., pages 18-19, paragraph 45 and Figure 3.

As the above amendments introduce no new matter, entry of these amendments by the Examiner is respectfully requested.

Claim Rejections – 35 USC §112

In the Advisory Action dated December 19, 2008, the Examiner rejected Claim 9 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner alleges that it is unclear how one can have “any of” a single printhead.

In response, Applicants have amended Claim 9 to recite “any of said printheads”, which has full antecedent support in the base claim.

In light of this amendment, applicants respectfully request withdrawal of this rejection.

Claim Objections – 37 CFR 1.75

In the Final Office Action dated October 9, 2008, Claim 19 was objected to under 37 CFR 1.75 as being a substantial duplicate of claim 17.

In the amendment after Final, which the Examiner entered (see Advisory Action dated December 19, 2008), the Applicants canceled claim 19 to expedite prosecution of the subject application, rendering this objection moot.

Withdrawal of this objection is thus respectfully requested.

Claim Objections – 37 CFR 1.75(c)

In the Final Office Action dated October 9, 2008, Claims 11-16 were objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. The Examiner alleged that claim 11, which claims “a biopolymer array” produced according to the method of the claimed invention, does not possess any structural distinctions between the prior art and the claimed apparatus.

In the amendment after Final, which the Examiner entered (see Advisory Action dated December 19, 2008), the Applicants canceled claim 11 and amended claim 12 to remove its reference to the array “according to claim 11” and add the element of “producing a biopolymer array according to the method of claim 9”. Applicants submit that these amendments render the claims of proper dependent form.

In light of these amendments, withdrawal of this objection is respectfully requested.

Claim Rejections – 35 USC §102

Claims 1-10, 12-17 and 21 are again rejected under 35 U.S.C. §102(e) as being anticipated by Shchegrova et al. (U.S. 2003/0143329).

Specifically, the Office alleges that Shchegrova et al. discloses a “method, apparatus, and computer program products useful in fabricating chemical biopolymer arrays” which anticipates the claimed invention.

For a rejection of claims under §102 to be properly founded, the Office must establish that a single prior art reference either expressly or inherently discloses each and every element of the claimed invention. *See, e.g. Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81 (Fed. Cir. 1986), *cert. denied*, 480 U.S. 947 (1987); and *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In *Scripps Clinic & Research Found. v. Genentech, Inc.*, 18 USPQ2d 1001 (Fed. Cir. 1991), the Federal Circuit held that:

“Invalidity for anticipation requires that **all of the elements and limitations** of the claim are found **within a single prior art reference**.... There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention.” *Id.* at 1010.

Anticipation cannot be found, therefore, unless a cited reference discloses all of the elements, features or limitations of the presently claimed invention. Applicants respectfully submit that Shchegrova et al. fails to recite all of the elements of claims 1-10, 12-17 and 21.

In the Advisory Action, the Examiner asserted that because “the claimed ‘printhead assembly’ only requires the presence of a single printhead not a sum of printheads”, the asserted selection of a frame in Schegrova meets the claim element of “selecting a printhead assembly”. The Examiner further asserted that a “best non-error dispenser” as described in Schegrova meets the claim element of selecting a “type of dispenser”.

Solely to expedite prosecution of the subject application, Claims 1 and 6 have been amended to specify “selecting at least one a printhead assembly comprising multiple printheads, wherein each of said printheads comprises multiple nozzle orifices” as well as to specify that the printhead related data includes “the type of each of said printheads, wherein said type is selected from a piezo-based printhead, a thermal-based printhead or a resistance-based printhead”.

In view of these amendments, Applicants submit that selecting a “frame” as specified in Shchegrova is not the same as selecting a printhead assembly comprising multiple printheads, wherein each of the printheads comprises multiple nozzle orifices as claimed. A frame as taught in Shchegrova, is “a series of dispensers which can simultaneously move along selected paths”. Selecting a “frame”, as defined by Shchegrova is selecting a subset of nozzles on a particular printhead. In contrast, selecting a printhead assembly comprising multiple printheads, wherein each of the printheads comprises multiple nozzle orifices, according to the claimed methods requires selecting all printheads (i.e., the sum of all printheads on the writer), the definition of which is recited in paragraph 45 of the specification, which reads:

“As to the subject methodology itself, it involves a set of criteria defining an ‘Aggregation Hierarchy’. In the subject model’s hierarchy, there exists a ‘Printhead Assembly’, as represented by Fig. 3. **The Assembly 100 corresponds to the sum of all printheads on a writer.** The Printhead Assembly is made up of one or more ‘Printhead Groups’ 102, each of which can print a complete set of the fluids to be dispensed by the writer. Each Printhead Group is made up of one or more ‘Printheads’ 104, each of which object can be made to fire at a specific point along the travel of the substrate. Each Printhead is made up of up of one or more ‘Wells’ 108, each of which contains exactly one of the fluids to be printed. Each Well is made up of one or more ‘Nozzle Regions’ 110, which are distinct from each other by their physical separation along one axis or by the way they are fired. Each Nozzle Region is made up of one or more ‘Nozzles’ 112, which is the smallest addressable unit of the printhead.”

Therefore, because selection of a frame in Shchegrova requires selecting a subset of nozzles on a particular printhead for use in a particular printing operation, it cannot read on selecting an entire printhead (or “the sum of all printheads on a writer”) as is currently claimed.

With regard to the “type of dispenser” element, Applicants have amended the claims to specify that the type of printhead selected includes “a piezo-based

printhead, a thermal-based printhead or a resistance-based printhead “. As such, Applicants submit that selecting a “best non-error dispenser” as in Shchegrova does not teach selecting a “type of printhead” as claimed.

Accordingly, because Shchegrova fails to teach each and every element of the claims, the Applicants respectfully request the withdrawal of this rejection.

CONCLUSION

In view of the amendments and remarks above, Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Office finds that a telephone conference would expedite the prosecution of this application, please telephone Bret Field at (650) 327-3400.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078, order number 10030938-1.

Respectfully submitted,

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